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THE TORNADO IN SOUTHERN MARYLAND, NOVEMBER 9, 1926

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[EDITOR'S NOTE.—The writer of this report made two trips to the scene of destruction. He was accompanied on the first trip by Mr. Arthur J. DeMars of the Forecast Division, and on the second by Mr. William C. Haines of the Aerological Division. The report is based on facts observed by these three gentlemen.]

A tornado, intense enough to cause the loss of 16 lives and almost complete destruction wherever it touched earth along a 15-mile path, occurred on the afternoon of November 9, 1926, in southern Maryland. Its known path was from a short distance southwest of La Plata in Charles County to beyond Cedarville, 14 miles away in the adjoining county of Prince George.

The general movement of the storm was almost directly northeastward across a gently rolling and for the most part wooded country varying in elevation from about 140 feet above sea level at the bed of streams to a little more than 220 feet on the hilltops. Judging from the wreckage, however, the vortex swayed from side to side as it progressed, there being many curves and abrupt changes of direction in its path, especially where the ground was uneven.

For nearly a mile at La Plata the tornado path was plainly visible. Four dwellings, a schoolhouse, and several substantial barns at this point were completely demolished, having been in every case lifted from their foundations and dropped as shattered débris to the ground. At several places between La Plata and Cedarville, visited by the writer, the destruction of buildings and uprooting and breaking of trees along a narrow path showed conclusively that the tornado did not lose its intensity nor change materially its direction of movement throughout its course. When it passed through Cedarville the storm still had full force, destroying or badly damaging everything in its path. Wreckage was strewn for some distance beyond Cedarville, but the tornado apparently dissipated a short distance beyond that town.

It is estimated that the storm moved a distance of about 15 miles in from 20 to 25 minutes. It was impossible, however, to obtain a definite statement regarding time of occurrence from any of the many witnesses interviewed.

Persons who witnessed the storm state that it became very dark just before the grinding roar of the tornado was heard. This roar was heard for some time before and after the tornado passed. One person reports having heard it from a distance of 3 miles away. Several described the tornado as a funnel-shaped cloud accompanied to a considerable height by whirling débris. Torrential rain occurred at the time of its passage. Little thunder was heard. Hail is said to have fallen at some places, but no evidence of it was found. Trees, débris, and houses on either side were mostly blown inward toward the center of the tornado but also forward, thus making an angle with the path. Trees and houses near or in the center of the path were carried straight forward in the direction of storm movement. A few trees at the edges were blown at right angles across the path. Another peculiarity noted was that the mass of wreckage of the schoolhouse at La Plata and trees surrounding it had been blown slightly toward the direction from which the storm approached.

At some places the tornado passed completely over the tops of trees, at other places it furrowed into the soil. Many fallen trees showed signs of having been twisted off and some tree tops were definitely twisted in an anticlockwise direction.

Clothing was stripped from bodies, and chickens defeathered. Heavy timbers were strewn for thousands of feet, and parts of desks from the La Plata school were found 7 miles away.

A letter from Mrs. R. B. Ellershaw, jr., Annapolis, R. F. D., contained the information that a piece of galvanized roofing 8 by 2 feet, bearing the name Mathews Howard (Inc.), La Plata, Md., fell in a farmyard 6½ miles from Annapolis and *about 50 miles from La Plata.* Mathews Howard (Inc.) state that they furnished the roofing for the schoolhouse at La Plata and that most of their sales were made around La Plata and south of that place and that they had never sold roofing to anyone very far north of it. Therefore it seems safe to conclude that this piece of roofing was carried aloft either from the schoolhouse or some other building in the tornado path.

Of the 16 persons killed, 13 were children caught in the collapse of the school. About 40 other people were injured, some severely.

A farmer who was in his home near La Plata when the tornado struck, told of a heavily timbered barn in his yard, 40 feet from where he stood at a window, being carried away without his knowledge, so dark had it become and so loud was the roar of the tornado. After it had passed him, he saw the tornado destroy a house 800 feet away and likened the spectacle to a great explosion of black gunpowder. This house was a little to the left of the center of the tornado path.

The statement of Miss Ethel Graves, a teacher at the La Plata school, is of unusual interest. She was evidently whirled about in the vortex while still conscious.

> It was just a few minutes before 3 o'clock that I heard a rumbling roar and the wind seemed to increase tremendously. I was just getting ready to take the children to some safer place when the glass from all the windows blew out. The children had started toward me then and were beginning to group themselves about me when suddenly it seemed as if they and everything in the room about me had been pulled up by some unseen hooks. Then we were all flying through the air. It seemed to me as if some of the children and parts of the building passed me several times. I lost consciousness then.

At the time the tornado occurred weather over the eastern United States was under the influence of a low-pressure area of considerable intensity that during the 12 hours beginning at 8 a. m. passed northeastward from central Indiana to extreme southern Ontario. East of a trough that extended southward from its center, and over the region through which the tornado passed, the general air movement was from the south and southwest at the surface and from the southwest aloft up to a known elevation of 2,000 meters. Above Washington, 28 miles from La Plata, at 3.24 p. m., at 1,710 meters elevation, the wind was blowing from the southwest at 24 meters per second. The wind shift associated with the passage of the trough above referred to did not reach Washington until 10 p. m., at which time the wind began to blow strongly from the north-northwest at the surface and aloft to at least 4 kilometers. This change in surface wind direction, it will be noted, took place about 10 hours after the occurrence of the tornado.

Conditions during the afternoon seem to have been favorable for very active convection locally along the Atlantic coast, as thunderstorms were general, and a thunderstorm with excessive precipitation (0.65 inch in nine minutes) occurred at Washington about the time the tornado passed La Plata.